

**ABSTRACT OF THE DISCLOSURE**

A peak detector for detecting a peak value of a burst signal in a burst mode optical receiver is disclosed, which comprises: an amplifying terminal configured to reduce an offset of a peak value in a received burst signal using feedback in the peak detector; a  
5 transistor that functions as a diode when a positive signal is received from the amplifying terminal; a peak hold capacitor for charging a peak value when the transistor received the positive signal; a signal amplitude detector to monitor the received burst signal amplitude; and a current source to drive a current responsive to the output signal amplitude detector.